

# DART SERVICE INSTRUCTION

TO AMEND INSTALLATION INSTRUCTIONS IIN-D412-698 REV. G OR LATER APPROVED REVISION  
AND INSTRUCTIONS FOR CONTINUED AIRWORTHINESS ICA-D412-698 REV.7 OR LATER APPROVED REVISION

REF. TCCA STC: SH92-43  
REF. FAA STC: SR01446NY  
REF. EASA STC: EASA.IM.R.S.00709  
REF. BRASIL STC: 2010S10-09  
REF. CHINA STC: VSTC0680  
REF. MEXICO STC: IA-625/2019

## 1.0 PURPOSE:

The purpose of this Dart Service Instruction (DSI) is to provide instructions for installation of the D412-698-023 Automatic Door Opener Kit on a Bell 412-030-851-XXX Composite Crew Door.

For D412-698-023 Automatic Door Opener Kits at CHG 003 and earlier, the DSI 9847-011 Composite Door Mod Kit is required. For D412-698-023 Automatic Door Opener Kits at CHG 004 and later, the content of the DSI 9847-011 Composite Door Mod Kit has been incorporated.

## 2.0 INSTALLATION OF D412-698-023 KIT ON COMPOSITE CREW DOORS:

**NOTE:** The following instructions are covering a typical RH side installation. For installation on the LH side, substitute D3594-043 Floor Doubler for D3594-044 Floor Doubler.

1. Follow installation steps 3.5.1 through 3.5.5 of IIN-D412-698.
2. Locate the D3594-047 Door Doubler on inner door skin, per Figure 2 of this DSI. Make sure location of door doubler is marked on door skin.
3. Make a 1.00" x 0.75" slot on the inside composite door skin per Figure 1 of this DSI for the MS21073L5 Anchor Nut to pass through and touch up per the Aircraft Maintenance Manual.
4. Drill Qty (4) #28 ( $\varnothing 0.141$ ") holes through the door skin and D3594-047 Door Doubler.
5. Remove any existing rivets where the D3594-044 Floor Doubler will be installed.
6. Perform step 3.5.9 of IIN-D412-698 on the D3594-044 Floor Doubler.
7. Prime and paint the D3594-047 and D3594-044 Doublers to match the aircraft per the Aircraft Maintenance Manual.
8. Apply a layer of Proseal on the faying surface of the D3594-047 and D3594-044 Doublers. Install D3594-044 Floor Doubler using CR3242-4 Rivets and D3594-047 Door Doubler using NAS9304B-4 Rivets.
9. Complete installation per steps 3.5.13 through 3.5.17 of IIN-D412-698.

CANADA  
DEPARTMENT OF TRANSPORT  
AIRCRAFT CERTIFICATION  
BRANCH  
DAO # 01-O-01

APPROVED

BY:   
D. SHEPHERD (DE # 02)

DATE: 20.03.19  
CERT. NO.: SH92-43  
ISSUE NO.: 6

APPROVED

A	NEW ISSUE	SAD	20.03.19
REV.	DESCRIPTION	BY	DATE
DESIGN	SAD	<b>DART AEROSPACE LTD</b> HAWKESBURY, ONTARIO, CANADA	
DRAWN	SAD		
CHECKED	MB	DRAWING NO.	REV. A
MFG. APPR.	N/A	DSI 9847	SHEET 1 OF 4
APPROVED	VS	TITLE	SCALE
DE APPR.	DS	COMPOSITE DOOR MOD	NTS
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### 3.0 PARTS LIST:

D412-698-023 Automatic Door Opener kits @ CHG003 and earlier can be made compatible with the 412-030-851-XXX Composite Crew Doors by procuring the DSI 9847-011 kit.

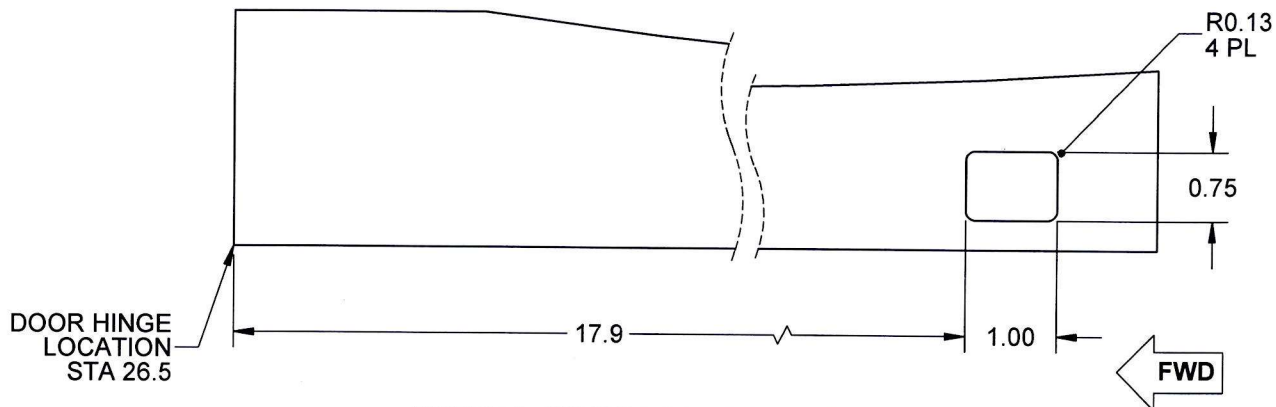
Qty -011	Part Number	Description
X	DSI 9847-011	COMPOSITE DOOR MOD KIT
1	D3594-047	DOOR DOUBLER ASSY
4	NAS9304B-4	RIVET

For D412-698-023 Automatic Door Opener kits at CHG 004 and subsequent, the parts list in Installation Instructions IIN-D412-698 Rev. G (Section 7.0) or later and Instructions for Continued Airworthiness ICA-D412-698 Rev. 7 (Section 52.20) or later is updated as follows:

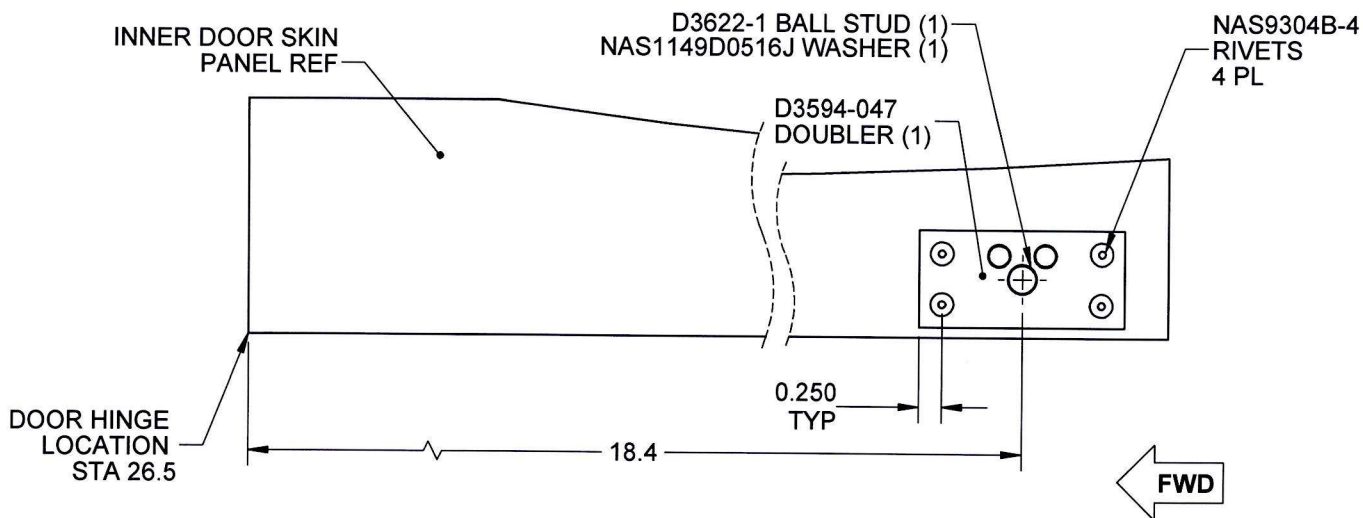
Qty -023	Part Number	Description
X	D412-698-023	AUTOMATIC DOOR OPENER KIT
1	D3552-11	GAS SPRING
1	D3594-5	DOOR DOUBLER
1	D3594-043	FLOOR DOUBLER ASSEMBLY, LH
1	D3594-044	FLOOR DOUBLER ASSEMBLY, RH
1	D3594-047	DOOR DOUBLER ASSY
2	D3622-1	BALL STUD
1	MS21073L5	ANCHOR NUT
2	MS20426AD4-4	RIVET
4	NAS9304B-4	RIVET

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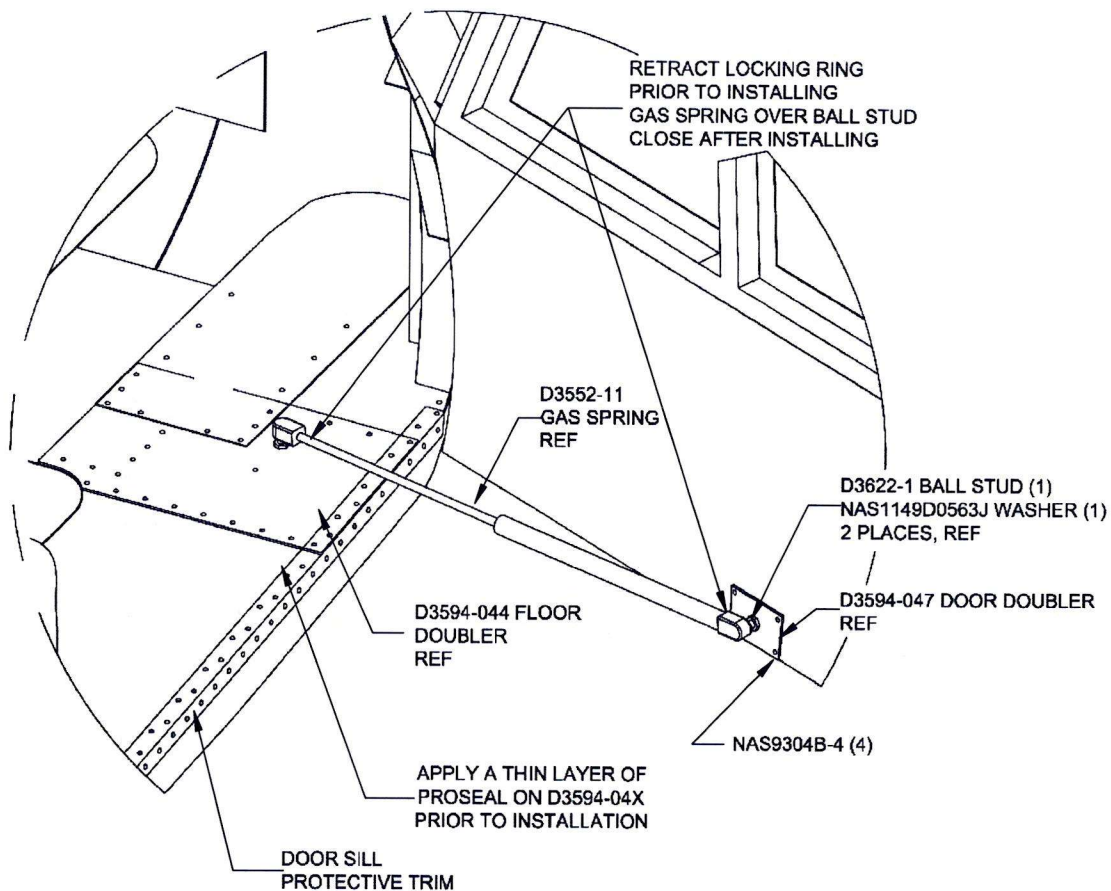
**FIGURE 1 - INSIDE DOOR SKIN CUT OUT (REF)**



**FIGURE 2- INSTALLATION OF D3594-047 DOOR DOUBLER**

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**FIGURE 3-D412-698-023 INSTALLATION ON COMPOSITE DOOR**



**FIGURE 4-PHOTO OF COMPLETED INSTALLATION**

**4.0 WEIGHT AND BALANCE:**

There is negligible weight change associated with this modification.

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